



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,336	10/31/2003	Douglas J. Mooney	112-0128US	9686
29855	7590	07/12/2005	EXAMINER	
WONG, CABELLO, LUTSCH, RUTHERFORD & BRUCCULERI, P.C. 20333 SH 249 SUITE 600 HOUSTON, TX 77070			REHM, ADAM C	
			ART UNIT	PAPER NUMBER
			2875	
DATE MAILED: 07/12/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/698,336

Applicant(s)

MOONEY, DOUGLAS J.

Examiner

Adam C. Rehm

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 5/9/2005 with respect to the rejection(s) of claim(s) 1, 2, 5-9, 16, 17 and 21 under 35 U.S.C. 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of DRAGOON (US RE34,254).

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 38 in Figure 5. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 5-9, 14-18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by DRAGOON (US RE34,254).

5. In regards to Claims 1, 2 and 5-9, DRAGOON provides: a segmented top wherein each segment is generally planar, reflective and connected to the adjacent segment (40 and adjacent top portion of 14 in Fig. 3); a back wall having a top portion connected to the segmented top (26 portion adjacent to 34), a generally planar bottom portion (28) and opposing side portions (left and right side portions in Figs. 1 and 4); a pair of opposing side walls connecting the segmented top to the back wall (left and right side walls in Figs. 1 and 4); a plurality of interior walls defining chambers (Figs. 4 and 5) open on their bottom surface (26) and front surface (30) said interior walls connected on their top portion to the segmented top (Figs. 1, 4 and 5) and connected on their rear portion to the back wall (Figs. 1, 4 and 5) and having their bottom portions generally coplanar with the bottom of the back wall (Figs. 1, 4 and 5); wherein the interior walls are reflective and opaque (40, Column 4, Lines 11-14 and Claims 1 and 2); at least one segment of the segmented top is in a plane which is substantially parallel to the plane defined by the bottom portions of the interior walls (top portion adjacent to 40 in Fig. 3 and 28); wherein at least one segment of the segmented top is in a plane, which is at an

Art Unit: 2875

acute angle to the plane defined by the bottom portions of the interior walls (40 in Fig. 3 and 28) and reflects light in a direction that is substantially parallel to the surface of the printed circuit board (Fig. 3).

6. In regards to Claims 16, 17 and 21, LEE discloses: a top (300), the cross section of which generally corresponds to a segment of a parabola (Fig. 4A); a back wall (396) having an upper edge connected to the top (Fig. 4A), a generally planar bottom edge and opposing side edges (Fig. 4A); a pair of opposing side walls (left and right side walls in Fig. 3B) connecting the top (300) to the back wall (396, Fig. 4A), a plurality of interior walls (left and right side walls in Fig. 3B) defining chambers (301 or Fig. 5) open on their bottom surface (341) and front surface (224) said interior walls (Figs. 3A and 3B) connected on their top portion to the top and connected on their rear portion to the back wall (300 in Fig. 4A or Fig. 5) and having their bottom portions generally coplanar with the bottom edge of the back wall (Fig. 4A); wherein the interior walls are opaque (Column 2, Lines 5-8); fabricated from a black, thermoplastic resin (Col. 4, Lines 5-9).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4, 10-13 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over DRAGOON (US RE34,254) in view of RUSSAY ET AL. (US 5,008,658).

Art Unit: 2875

9. Regarding Claims 4 and 19, DRAGOON substantially discloses the claimed invention as recited in Claims 1 and 18 above, but does not disclose interior walls that are diffusely reflective to visible light.

10. However, RUSSAY teaches interior walls (46, Fig. 3), which are diffusely reflective to visible light for the purpose of scattering light (Column 4, Lines 67 and 68, Column 5, Lines 1-6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the DRAGOON device to include the type of diffusely reflective surface as taught by RUSSAY in order to provide a device that efficiently directs light in a desired direction (Column 5, Lines 6-11).

11. Regarding Claims 10-13, DRAGOON substantially discloses the claimed invention as recited above in Claim 1 including means for mounting a housing 14 to a circuit board (Column 3, Lines 35-40), but does not disclose: a mounting stud on the support surface for attaching a light reflector to a printed circuit board (Claim 10); or a mounting stud having barbs for engaging a receiving hole in a printed circuit board (Claim 11); or a mounting stud that is threaded for receiving a nut (Claim 12) or a mounting stud that is generally cylindrical and comprised of a material which may be deformed at its distal end to provide a region of increased diameter (Claim 13).

12. However, RUSSAY teaches a mounting stud (38) on a support surface (66) for attaching the light reflector (46, Fig. 3) to a printed circuit board (30); wherein the mounting stud (38) comprises barbs (Fig. 1) for engaging a receiving hole (36) in a printed circuit board (30); wherein the mounting stud (38) is threaded for receiving a similarly threaded nut (Fig. 1); wherein the mounting stud is generally cylindrical and

Art Unit: 2875

comprised of a material which may be deformed at its distal end to provide a region of increased diameter (Fig. 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the DRAGOON device to include the type of releasable attachment means as taught by RUSSAY, which would provide means to attach various objects to a printed circuit board (Col. 3, Lines 14-17).

13. Claims 7-9 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over DRAGOON (US RE34,254). DRAGOON substantially discloses the claimed invention as recited above in Claims 1 and 16, but does not explicitly disclose fabrication via an injected-molded, black thermoplastic resin or polycarbonate resin. However, it would have been obvious to one of ordinary skill in the art at the time of invention to utilize a thermoplastic resin due to its ease of processing with such a resin being a polycarbonate resin due to its well-known electrical properties. Notably, the virgin color of common polycarbonates is black. Lastly, an obvious molding process would be injection molding due its well-known ability to fabricate precision parts in three dimensions.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

15. SCHMITT ET AL. (US 6,229,713) teaches a device that includes multiple light channels for separating light from adjacent indicating lights, thus preventing bleed-over,

Art Unit: 2875

which can be constructed from various foams, plastics, metals, composites, fabrics and rubber.

16. CHEN (6,685,351) teaches an indicator light device on a computer front panel.

17. SUCKOW ET AL. (US 6,183,100) teaches a light emitting diode-warning lamp having reflectors that may be fastened to a printed circuit board via deformable mounting or snap-fit features.

18. HARDT (US 5,387,901) teaches an LED indicator light assembly mounted onto an interior side of a computer-housing wall having a reflector apparatus to manipulate the emitted light.

19. YAMAMOTO (US 3,966,303) teaches an apparatus with reflecting surfaces for reflecting light throughout an inner cavity in order to emit the light in a desired direction.

20. POSEY ET AL. (US 6,457,992) teaches a visual feedback for electronic device and provides that light pipes are often constructed from a plastic, generally translucent material.

21. HESS ET AL. (US 6,368,159) teaches the use of polycarbonate in the construction of a light pipe due to its high light transmission capability.

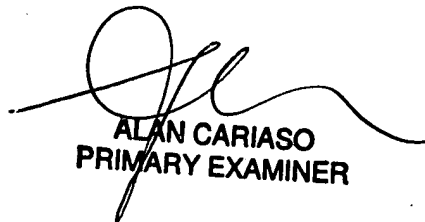
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam C. Rehm whose telephone number is 571.272.8589. The examiner can normally be reached on M-F 9-5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571.272.2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2875

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ACR
July 7, 2005



ALAN CARIASO
PRIMARY EXAMINER